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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/811,249	03/26/2004	Christopher J. Clements	25307A	1641
22889 7590 01/24/2007 OWENS CORNING 2790 COLUMBUS ROAD GRANVILLE, OH 43023			EXAMINER WOLLSCHLAGER, JEFFREY MICHAEL	
			ART UNIT 1732	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE			MAIL DATE	
3 MONTHS			01/24/2007	
			DELIVERY MODE PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/811,249

Applicant(s)

CLEMENTS, CHRISTOPHER J.

Examiner

Jeff Wollschlager

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 2, 4-16 and 21-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4-16 and 21-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on November 30, 2006 has been entered.

Response to Amendment

Applicant's amendment to the claims filed November 30, 2006 has been entered. Claims 1, 11, and 12 are currently amended. Claims 3 and 17-20 are canceled. Claims 21-25 are new.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 11-16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 11 as currently amended,

encompasses subject matter broader than is supported by the original disclosure. The examiner notes that the amendment to the claim does not require the internal glass fibers to be unbonded, but only that the internal glass fibers are not bonded by "said binder". As such, the internal fibers as claimed can be bonded by another binder and are not necessarily unbonded. As such, the scope of the claim is broader than is supported by the disclosure.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 12 is indefinite because it recites "said sugar". However, there is lack of antecedent basis for this limitation in the claims.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 11, 15, and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Fekete et al. (U.S. Patent 3,730,808).

Regarding claims 11 and 16, Fekete et al. teach a method of making a fiber reinforced resin article wherein a layer of resin is initially applied to the surface of a mold

(col. 1, lines 52-65; col. 2; lines 8-20) and multiple layers of continuous glass strands (col. 6, lines 69-75) are added to the mold. The layer of glass strands adjacent to the resin layer bonds with the resin layer in forming the composite (Figure 3 and 4; col. 2, lines 50-59; col. 5, lines 23-32). The additionally added layers of fibers do not contact the initial resin layer and as such are not bonded with said binder. The article is removed from the mold in order to serve its desired function.

As to claim 15, Fekete et al. further teach the fiber mat extends at angles to the mean plane of the mat. As such, the fiber mats are texturized (col. 7, lines 18-32).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 4-10 and 21-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Knutsson et al. (U.S. Patent 5,766,541) in view of Golden et al. (U.S. Patent 5,317,037) or Chiu et al. (U.S. Patent 6,800,364) or Delvaux et al. (U.S. Patent 6,254,810).

Regarding claim 1, Knutsson et al. teach a method for making preforms from glass fiber strands wherein the glass fiber strands are texturized by separation to form a wool type product (col. 3, lines 50-55) prior to entry into the mold through a texturizing gun (Figure 9). The binder, water as a wetting agent, and glass fibers are fed into the

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mold (col. 3, lines 36-57), the mold is heated to cure the binder and the glass strands (col. 9, lines 52-67) and the mold is cooled to form the preform (col. 8, lines 25-32). Additionally, U.S. Patent 4,569,471 to Ingemansson et al., which is incorporated by reference into Knuttson et al. at col. 9, lines 8-12 disclose the texturized wool-like fiber may travel through a hose prior to being fed into the mold ('541: col. 12, lines 8-11; '471: Figure 3, element (50)). Knutsson et al. do not expressly disclose the binder is sugar.

However, Golden et al. (Abstract; col. 2, lines 24-col. 3, lines 9; Example 10), Chiu et al. (col. 1, lines 55-col. 2, lines 7; col. 4, lines 31-67) and Delvaux et al. (Abstract; col. 3, lines 18-67) disclose methods of molding fiber reinforced composites wherein sugar is employed as the binder.

Therefore it would have been *prima facie* obvious to one having ordinary skill in the art at the time of the claimed invention to replace the binder disclosed by Knutsson et al. with a sugar binder as disclosed individually by the cited references, for the purpose as disclosed by Golden et al. (col. 1, lines 11-16; col. 2, lines 23-31) and Chiu et al. (col. 1, lines 55-67), for example, of utilizing a more environmentally friendly binder.

As to claim 2, the fibers employed by Knuttson et al. are continuous (col. 3, lines 50-58).

As to claim 4, Knuttson et al. disclose feeding the binder and strands simultaneously (col. 8, lines 45-60).

As to claim 5, Knuttson et al. disclose a shape corresponding to a muffler (Figure 2; col. 3, lines 8-22).

As to claim 6, the preform (10) is removed from the mold (22) (Figure 3).

As to claim 7, Golden et al. disclose a sugar that melts in the temperature range of 120 °C to 175 °C (col. 2, lines 48-60).

As to claim 8, the mold employed by Knuttson et al. is perforated (col. 4, lines 20-35).

As to claim 9, Knuttson et al. pass heated air through the perforated preform sufficient to cause curing (col. 9, line 52-col. 10, line 5).

As to claim 10, Knuttson et al. pass air through the perforated preform mold for cooling (col. 8, lines 7-16).

Regarding claims 21 and 25, Knutsson et al. teach a method for making preforms from glass fiber strands wherein the glass fiber strands are texturized by separation to form a wool type product (col. 3, lines 50-55) prior to entry into the mold through a texturizing gun (Figure 9). The binder, water as a wetting agent, and glass fibers are fed into the mold (col. 3, lines 36-57), the mold is heated to cure the binder and the glass strands (col. 9, lines 52-67) and the mold is cooled to form the preform (col. 8, lines 25-32). Further, Knuttson et al. disclose the binder preferably comprises about 2% to about 10% by weight of the preform (col. 4, lines 14-19). Knuttson et al. do not expressly disclose sugar as the binder.

However, Golden et al. (Abstract; col. 2, lines 24-col. 3, lines 9; Example 10), Chiu et al. (col. 1, lines 55-col. 2, lines 7; col. 4, lines 31-67) and Delvaux et al. (Abstract; col. 3, lines 18-67) disclose methods of molding fiber reinforced composites wherein sugar is employed as the binder.

Therefore it would have been *prima facie* obvious to one having ordinary skill in the art at the time of the claimed invention to replace the binder disclosed by Knutsson et al. with a sugar binder as disclosed individually by the cited references, for the purpose as disclosed by Golden et al. (col. 1, lines 11-16; col. 2, lines 23-31) and Chiu et al. (col. 1, lines 55-67), for example, of utilizing a more environmentally friendly binder. Further, Chiu et al. disclose the sugar content impacts the integrity of the final product and that a sugar content of about 10% to about 20% by weight is desired (col. 4, lines 52-67).

As to claim 22, Knuttson et al. disclose feeding the binder and strands simultaneously (col. 8, lines 45-60).

As to claim 23, Golden et al. disclose a sugar that melts in the temperature range of 120 °C to 175 °C (col. 2, lines 48-60).

As to claim 24, the fibers employed by Knuttson et al. are continuous (col. 3, lines 50-58).

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fekete et al. (U.S. Patent 3,730,808), as applied to claims 11, 15 and 16 above.

As to claim 12, Fekete et al. disclose employment of polyester resins as the binder (col. 5, lines 57-70), but do not expressly disclose employment of sugar as a binder. However, sugar is a conventional binder and would have been an obvious choice to the ordinarily skilled artisan at the time of the claimed invention.

Response to Arguments

Applicant's arguments filed November 30, 2006 have been considered, but they are moot in view of the new grounds of rejection.

Conclusion

All claims are rejected.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff Wollschlager whose telephone number is 571-272-8937. The examiner can normally be reached on Monday - Thursday 7:00 - 4:45, alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on 571-272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JW

Jeff Wollschlager
Examiner
Art Unit 1732

January 22, 2007


CHRISTINA JOHNSON
SUPERVISORY PATENT EXAMINER
1/22/07